

PATENT

Att. Dkt. No. TSAI/0004

IN THE CLAIMS:

1. (Currently Amended) A metal material adhesion method for an optical transceiver module assembly process, the metal material adhesion method comprising:
providing a laser diode protection cover;
providing a metal shell;
coating a primer layer in the metal shell;
utilizing an alignment process according to a detection signal strength to determine a relative position of the metal shell and the laser diode protection cover; and
adhering the laser diode protection cover to the primer layer inside the metal shell with an epoxy layer, wherein a step of utilizing a prefixing material to prefix the laser diode protection cover to the primer layer is performed before the adhering step.
2. (Original) The metal material adhesion method of claim 1, wherein the alignment process utilizes an optical fiber to capture the detection signal strength and adjusts the relative position to find a maximum detection signal strength position.
3. (Original) The metal material adhesion method of claim 1, wherein the laser diode protection cover is made of a Ni-Fe alloy.
4. (Original) The metal material adhesion method of claim 1, wherein the metal shell is made of stainless material.
5. (Original) The metal material adhesion method of claim 1, wherein the primer layer is an epoxy paint or a rubber paint.
6. (Cancelled)
7. (Currently Amended) The metal material adhesion method of claim [[6]] 1, wherein the prefixing material is an instant adhesive or an ultraviolet glue.

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8. (Original) The metal material adhesion method of claim 1, wherein after the step of adhering the laser diode protection cover to the primer layer further comprises a step of utilizing a sealant layer to seal the primer layer and the epoxy layer between the laser diode protection cover and the metal shell.

9. (Original) The metal material adhesion method of claim 8, wherein the sealant layer is a polypropylene sealant layer, a silicon sealant layer, or an inorganic material sealant layer.

10. (Currently Amended) The metal material adhesion method of claim 1, wherein after the step of coating a primer layer in the metal shell further comprises a step of coating ~~a protection cover primer layer~~ another primer layer on the laser diode protection cover.

11. (Currently Amended) The metal material adhesion method of claim 10, wherein the ~~protection cover primer layer~~ another primer layer is an epoxy paint or a rubber paint.

12. (Currently Amended) The metal material adhesion method of claim 11, wherein after the step of adhering the laser diode protection cover to the primer layer further comprises a step of utilizing a sealant layer to seal the primer layer, the ~~protection cover primer layer~~ another primer layer and the epoxy layer between the laser diode protection cover and the metal shell.

13. (Original) The metal material adhesion method of claim 12, wherein the sealant layer is a polypropylene sealant layer, a silicon sealant layer, or an inorganic material sealant layer.

14. (Currently Amended) A metal material adhesion method for an optical transceiver module assembly process, the metal material adhesion method comprising:
providing a laser diode protection cover ~~made of a Ni-Fe alloy~~;

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providing a metal shell ~~made of stainless material~~;
coating a first primer layer in the metal shell;
coating a second primer layer on the laser diode protection cover;
utilizing an alignment process according to a detection signal strength to determine a relative position of the metal shell and the laser diode protection cover; and
adhering the second primer layer on the laser diode protection cover to the [[20]] first primer layer inside the metal shell with an epoxy layer, wherein a step of utilizing a prefixing material to prefix the second primer layer to the first primer layer is performed before the adhering step.

15. (Original) The metal material adhesion method of claim 14, wherein the alignment process utilizes an optical fiber to capture the detection signal strength and adjusts the relative position to find a maximum detection signal strength position.

16. (Currently Amended) The metal material adhesion method of claim 14, wherein the first primer layer and the second primer layer are ~~coated with~~ an epoxy paint or a rubber paint.

17. (Cancelled)

18. (Currently Amended) The metal material adhesion method of claim ~~[[17]]~~14, wherein the prefixing material is an instant adhesive or an ultraviolet glue.

19. (Original) The metal material adhesion method of claim 14, wherein after adhering the second primer layer on the laser diode protection cover to the first primer layer inside the metal shell with an epoxy layer further comprises a step of utilizing a sealant layer to seal the first primer layer, the second primer layer and the epoxy layer between the laser diode protection cover and the metal shell.

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20. (Original) The metal material adhesion method of claim 19, wherein the sealant layer is a polypropylene sealant layer, a silicon sealant layer, or an inorganic material sealant layer.